

The Transition to low carbon: policy frameworks and community action

Abstracts

Day 1 – Policy Frameworks

Why Cap Emissions if Peak Oil is Coming Anyway?

Richard Douthwaite (Foundation for the Economics of Sustainability)

My talk will look at the rate that fossil fuel emissions have to be reduced if the 350 ppmv concentration target is to be reached. It will compare that reduction rate with the rate at which emissions are likely to fall anyway because of resource-constrained supplies of fossil fuels. It will make the point that there's not a lot of difference between the rates except that fossil production falls a few years later and that delay would make it impossible to hit the 350 target.

I will then point out that oil production is already falling and that a rationing procedure is needed if the scarcity rent that will develop if the world economy begins to recover from the credit crunch is not to collapse the recovery. This rationing procedure would have to apply to the other two major fossil fuels as, otherwise, scarcity rents will develop too. So a Cap and Share type system is required immediately for economic reasons, not just for climate ones as the world economy will oscillate between boom and bust without it. Moreover, the contraction rate required for this C&S is very close to that required for climate reasons alone.

Richard Douthwaite trained as an economist and is the author of "The Growth Illusion". Ten years ago he helped found the Foundation for the Economics of Sustainability (Feasta), the Dublin-based NGO which developed Cap and Share. His activities at present cover energy, climate change, non-debt money systems and ways to turn the land from an emissions source to a sink.

Can the UK Deliver on its Carbon Budgets?

Sam Fankhauser (London School of Economics)

The UK has a statutory obligation to reduce its greenhouse gas emissions by 80% by mid century. The path toward that goal is defined through a series of 5-year carbon budgets, the first three of which were set in spring this year. They commit the UK to a 34% emissions cut by 2022, relative to 1990. These targets were recommended by the Committee on Climate Change, an independent body that advises the government on carbon budgets.

How will Britain meet these targets? The government set out its strategy in a white paper, the low carbon transition plan, in summer 2009. The Committee on Climate Change published its own assessment of Britain's carbon performance so far in October 2009. This talk outlines the Committee's views, as set out in its October report.

Dr. Samuel Fankhauser is a Principal Research Fellow at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics. He is a member of the Committee on Climate Change, an independent public body that advises the UK government on climate change policy, and of its Adaptation Sub-Committee. He also serves as Chief Economist at Globe International, the international legislator forum. Sam's research interests include carbon markets, the economics of adaptation and the social costs of climate change.

Making the Most of the Crisis

Alan Simpson MP

As the Copenhagen talks hang in the balance someone has to ask whether failure would be our best hope of success. The looming crisis in climate change is not going to be solved by tinkering with the edges of the existing system. Rules and institutions that have become moribund have to be abandoned. New ones that are fit for the era into which we are moving, offer the only way out. It comes down to vision, leadership, political will...and whether we are up to it. That's what I intend to explore.

Alan is the UK government's special advisor on feed in tariffs and renewable energy. He is the only Member of Parliament to have built his own eco-home, and is now a net exporter of energy back into the national grid. He has been Green Futures environmental politician of the year, was instrumental in forcing feed-in tariffs into the 2008 Energy Act and is an unashamed advocate of radical, structural change. Alan is standing down from parliament at the next election to concentrate on environmental campaigning.

The Copenhagen Conference of the Parties (COP)

Colin Challen MP

Colin Challen is the author of 'Too little too late: the Politics of Climate Change.' He is also an active member of the Environmental Audit Committee and the select committee examining the expenditure, administration and policies of the Department of Energy and Climate Change. He also chairs the Cross Party Climate Change Group.

Tradable Energy Quotas: Design for a Steep Energy Descent and Guaranteed Fair Access to Energy.

David Fleming

Both the depletion of fossil fuels and the phased reduction in carbon emission will present energy users with the problem of deep energy scarcity. Fair access to energy will require guaranteed entitlements, calibrated in terms of energy, not money. Energy users will also need a framework for cooperation if they are to achieve the needed transformation in the energy foundations of our society. And they will need a system which guarantees that this reduction is achieved. TEQs provide the generic framework to meet these needs.

David Fleming has an academic background in both history and economics, and has worked, inter alia, in industry, journalism and environmental consultancy. He has held positions of the economics spokesman for the Green Party and the chairman of the Soil Association. He is the inventor of Tradeable Energy Quotas and is currently writing "The Dictionary of the Future and How to Survive it."

Simon Roberts (ARUP Foresight Group)

Energy Saving versus Economy-Wide Backfire - Are We Winning? Insights from the 4see Embodied Energy Model

The general view is that energy saving measures leading to a decrease in energy use is self evident. But if however total energy use by an economy ends up increasing, referred to as "backfire", this would have worrying implications for energy- and emissions-reduction policies. My talk will review evidence for backfire and go on to consider energy efficiency within a new socio-economic-energy model for the UK called "4see".

I will present analysis within 4see of historical data since 1990, extending this to two scenarios for the UK to 2025. Both scenarios start with the premise that control of unemployment trumps all policies. The "reactive", or business-as-usual, scenario then goes onto consider how the economy might react to declining output of gas and oil from the North Sea. Given the sophistication of the UK's balance of payments, this scenario gives the surprising observation that a 1% year-on-year devaluation of sterling could pay for increasing fuel imports, despite rising world prices. The "proactive" scenario shows the benefits of investment in energy efficiency and renewables and aggressive transport reduction policies. The observation from this scenario is that domestic growth is the same as for the "reactive" scenario but that sterling holds its value and carbon dioxide emissions are reduced 40%.

Simon Roberts is Associate Director of Arup Foresight, Innovation and Incubation Group in London. The Group is charged with maintaining a focus for logical, analytical thought about the many possible futures that Arup confronts.

Financing the Transition to the Low Carbon Economy

Barbara Hammond (South East England Development Agency)

The South East has the biggest challenge to face of all the English regions in making the transition to a low carbon economy. We have the highest ecological footprint, the biggest land area, the biggest population of people and businesses and yet the most dispersed population. The rate of investment we need to make if we are to achieve an 80% reduction in carbon dioxide emissions by 2050 is huge, £2bn per annum just for our domestic housing stock. Barbara Hammond will explain how the South East England Development Agency is working with partners to address this challenge in a context of dwindling public resources but increasing local energy and innovation.

Barbara Hammond is currently Strategy Director at the South East England Development Agency. She is responsible for development, monitoring and review of the Regional Economic Strategy and SEEDA's own Corporate Plan. Barbara's particular interest in her role, following the Stern Review of 2007, is to help the South East make the transformation to a low carbon economy in a way which benefits its people and its environment as well as its businesses.

Climate Policy under Conditions of Contraction: When Complex Solutions Go Pear-Shaped

Brian Davey (Cap and Share UK)

Conventional approaches to climate policy assume that the future will be very much like the past - but with big corporations being incentivised by a high carbon price to provide clever technologies to solve global warming. Yet for those of us who take the concept of peak oil seriously the future will not look like the past. It will be pretty chaotic. Energy is needed to maintain complex policy and technical infrastructures. As energy inputs decline these infrastructures are likely to degrade.

There is already plenty of evidence that government climate and energy policies are ineffectual. They are simply too complex to develop and administer quickly, cheaply and well. In his presentation Brian Davey will argue that for climate policies to be robust past the peak in oil production they must be very simple to administer, support social cohesion, and support an active and engaged citizens in self help at the community level.

Many of the currently proposed large scale top down solutions to the climate crisis will probably never be viable and will be a waste of ever scarcer resources.

Brian Davey is a freelance ecological economist who works with the FEASTA climate and energy working group. He is also a founder member of Transition Nottingham. He has spent most of his working life involved in the community and voluntary sector in Nottingham and developed a number of projects including Ecoworks, a community garden for disadvantaged people. He is interested in the community dimensions of responding to the limits to growth.

Low Carbon: a Policy - Practice Jigsaw

Peter Lipman (Sustrans)

Why did Ed Milliband indicate that he wanted to be invited to come to the last Transition Network conference and then agree to come as a keynote listener? Does it really make any difference at all? I'd like to discuss my experiences, through both Transition Network and Sustrans, of the nexus between bottom up community movement, ngo activity and power/government.

Peter Lipman is policy director at sustainable transport charity Sustrans, chair of trustees of the Centre for Sustainable Energy and of Transition Network.

Day 2 – Community Action

How a Community can Fund its own Energy Supply

Richard Douthwaite (Foundation for the Economics of Sustainability)

A serious problem facing groups wishing to develop renewable energy sources in their area is finding the capital, particularly as most forms of renewable require a high initial investment. But most renewables also have low running costs. As a result, most of the price the customer pays for power from them can go to service the debt taken on to build the plant. Energy bonds are a way of raising the capital and then allowing a community to pay it back as its members pay for their power. The bonds are undertakings to supply a specific amount of energy, measured in kilowatt hours, at a specific time in the future. A community energy company can sell a range of these with differing maturity dates to people anywhere in the world who are convinced that power prices will go up. The bonds are redeemed as they mature using part of the money paid by the power users, who thus take over the ownership of the installation themselves. This talk sets out the concept of energy bonds, explores their potential and considers some concrete proposals.

Richard Douthwaite trained as an economist and is the author of "The Growth Illusion". Ten years ago he helped found the Foundation for the Economics of Sustainability (Feasta), the Dublin-based NGO which developed Cap and Share. His activities at present cover energy, climate change, non-debt money systems and ways to turn the land from an emissions source to a sink.

Building Sustainability into Your Structure; a Case Study

Patrick Andrews (Riversimple)

Riversimple is a very unusual car company. Its purpose is to move people sustainably, designing and building highly energy efficient vehicles for personal transportation. Its first car, currently under development, will be powered by a hydrogen fuel cell and aims to achieve the equivalent of 300 mpg. Riversimple will not sell cars but will lease them and is publishing its designs on the internet, to be freely downloadable by anyone under an open source license.

One notable aspect of Riversimple is its unusual and innovative ownership structure. This has been deliberately designed to encourage the organisation to pursue its purpose, above any other secondary goal such as pursuit of profit. A community of stakeholders including investors, staff, the environment, neighbours and customers jointly own the business and appoint the board.

Patrick Andrews, who is responsible for crafting the ownership structure of Riversimple, will describe the structure and explain the thinking behind it. He will talk about some of the businesses that inspired it, including VISA International, The John Lewis Partnership, the Forest Stewardship Council and Cafedirect, and share some thoughts on options for those who are looking to create new entities.

Patrick Andrews is fascinated by business structures, and the way they influence the behaviour of individuals. A former solicitor, he worked for many years as a corporate lawyer for Pratt & Whitney, Otis and Kingfisher, specialising in cross-border transactions. More recently he worked independently with a number of small and medium sized organisations, mainly social enterprises. He is currently full-time engaged with Riversimple LLP, who are developing a highly efficient, hydrogen fuel-cell powered car and have adopted an innovative organisational structure.

The Meadows Community Energy Company

Jerome Baddeley (Nottingham Energy Partnership)

The inner city, multicultural Meadows district of Nottingham is an area of multiple deprivation. With high unemployment, low average income and poor educational attainment, one would assume that tackling climate change would not be high on the list of the community's priorities. But, despite the pressing economic and social issues facing the area, Meadows' residents are aiming to slash carbon emissions through a community-owned energy company called the Meadows Ozone. The company has been set up by a partnership of local groups and community representative including, Alan Simpson MP, the Meadows Partnership Trust, Tenants and residents groups, the Nottingham Energy Partnership and National Energy Action.

One of the central aims is to purchase and manage a large community wind turbine, generating profit to recycle into community energy saving projects. The energy company is also offering zero interest loans, doorstep energy advice, support in accessing energy efficiency grants and

supplier switching to save on energy bills. The Meadows Ozone are hoping to build a long term relationship with an energy company partner to develop innovative solutions to carbon and energy saving in the Meadows area. Finding ways to deliver energy saving solutions to low income households will be critical in ensuring that the increasing utility implicit in rising oil and gas prices and the costs required to fund low carbon transition do not create a new wave of fuel poverty and an energy 'underclass.'

Establishing the company, finding project funding, gaining planning permission, maintaining a balance between partners interests, state aid and trying to raise capital funding for the turbine, providing services tailored for the local need, have all thrown up challenges of their own. This presentation will touch on these issues and how the Meadows Ozone has or is dealing with them.

Jerome joined The Nottingham Energy Partnership in 2005. He occupies a senior management role within NEP leading on Sustainable Energy Development in the city of Nottingham. Jerome has acted as lead consultant, commissioner and manager for a significant number of sustainable energy and carbon reduction projects for NEP from work on planning policy to supporting the development of a community ESCO. Previously he worked with Iskra wind turbines as marketing manager and before that for the Centre for Alternative Technology as an information officer. Jerome's background is in education, as a science teacher. He has lead national award winning training programmes and presented to numerous national and international conferences on carbon management and sustainable energy. Jerome's primary interest is in sustainable energy and carbon management.

Community-Driven Change: Transformation from the Bottom-Up

Steve Clare (Development Trusts Association)

There is a deep and persistent tendency to categorise issues such as climate change and resource supply as 'environmental'. Although there is a logic to this, it is hugely unhelpful because it traps people into assumptions about the nature of the impacts and about who needs to engage and help find solutions. The problem of engaging a broader range of people in climate change can operate at many levels – but perhaps the key is to relocate the challenge as a driver of wider social change. For a long time the missing element has been at community level with relatively few attempts to explore what can be done through collaboration at different scales. Collective action is also a tool for developing shared values, more coherent communities and for building new networks and new social capital.

For example, as the number of dispersed renewable energy schemes increases, it is essential to engage communities so people feel involved, consulted and supportive of the transition away from centralised fossil fuel and nuclear power stations. One of the most effective methods to engage people is through ownership of such developments, which create tangible benefits to both individuals and communities. Whether it is wind, biomass, solar or hydro, taking responsibility for generating their own power is one way that communities can act today on climate change. Add in local food production, educational initiatives and the wider promotion of community enterprise – and the challenge becomes one of communities taking control and creating their own future.

Steve Clare worked in the voluntary sector throughout the 1980s and then moved to a major pan-London funding agency. In 2000 he joined East London training provider NEWTEC and led on the development of the £6 million East London Childcare Institute. Steve joined the Development Trusts Association as Assistant Director (South) in 2005. He is an NLP Master Practitioner, a SFEDI-accredited business advisor, a member of the Institution of Economic Development and has served as a Director for three of the regional Social Enterprise networks (including Rise in the South West).

Sustainable Households: How Much Decarbonisation Can we Do at Home, and Can Local Communities Help?

Peter Harper (Centre for Alternative Technology)

*Peter Harper is Head of Research and Innovation at the Centre for Alternative Technology (www.cat.org.uk) where he has worked for 25 years. He was a pioneer of the alternative technology movement and has always tried to relate technological 'hardware' with social and personal 'software'. His interests have included the paradoxes of climate change, energy policy, ecovillages, low-carbon lifestyles, alternative sanitation, composting, landscape design, and organic horticulture. He likes to call a spade a spade. His publications include *Radical Technology* (1976) an early textbook of technical alternatives, *The Natural Garden Book* (1994) and *Lifting the Lid* (2000) on low-impact sanitation systems. He was a member of the team that produced *ZeroCarbonBritain* in 2007. He runs his own house and garden as an experimental 'lifestyle laboratory'.*

Ashley Vale in Bristol - Self Build as a Tool to Create and Empower Communities

Anna Hope (Ecomotive)

Over the last 10 years, the Ashley Vale project in Bristol has taken a disused scaffolding yard and turned it into a vibrant community with many sustainable features. Anna will explore how the project came about, key features of its success, the role and importance of community participation in the project and some lessons for future developments, with a particular emphasis on environmental sustainability.

Anna Hope and her partner Jackson Moulding helped to set up Ashley Vale Action Group in 2000, and since then they have been closely involved in the various phases of this exciting inner city sustainable community project. They designed and built their own timber frame eco house on the Ashley Vale site and have now set up Ecomotive, a non profit company dedicated to supporting other people and communities in building their own affordable and sustainable homes.

Less is More: some Experiences of Social Venturing and the Next Economy

Robin Murray (Young Foundation)

This talk explores ways in which public authorities have been able to promote innovative environmental ventures – from the Green Communities in Canada in the early 1990s to community recycling and local authority waste initiatives in the UK since the mid 1990s, and to local energy systems and a domestic smart energy service in London over the past 5 years. It will discuss the institutional and financial arrangements which allowed these ventures to get established, the contributions of design and of community coalitions, and the lessons for householder involvement as important links in the production chains of the new resource conserving systems.

Robin Murray is an industrial and environmental economist. For the past 15 years his work has focussed on alternative waste and recycling systems and community energy programmes. He is the author of Creating Wealth from Waste (Demos) and Zero Waste (Greenpeace). His latest book is Social Venturing (NESTA). He is a founding partner of the action research group Ecologika, and a Fellow of the Young Foundation.

Solutions for Living on One Planet

Sue Riddlestone (BioRegional)

Sue will take a closer look at some successful projects which BioRegional have instigated to help us live within a fair share of the earth's resources – what we call one planet living. This will include the BedZED eco-village, the UK's largest mixed use sustainable community; BioRegional's partnership with the London Borough of Sutton which aims to retrofit sustainability into an existing outer London suburb; [The Laundry](#), London's first kerbside recycling collection and BioRegional MiniMills, a spin-off company that is developing a small-scale, clean technology to pulp straw and recover energy and pulping chemicals from the effluent.

Sue will explain how this experience has informed and inspired BioRegional's 'Ten Core Principles of One Planet Living'. Sue will emphasise and illustrate the importance of these lessons and discuss how changes can be made at a community level.

Executive director and co-founder Sue Riddlestone has worked to create sustainable communities in the UK and from China to the USA. She is also a member of the London Sustainable Development Commission and the Government's Eco-Towns Challenge Panel which helped to improve the standard of the eco-towns proposals.

How to Build a Community Wind Farm

Adam Twine (Westmill Co-operative)

Westmill wind farm is a classic remix of transition hardware and transition software.... the hardware is the 5 wind turbines producing clean, fossil fuel free electricity and the software is the co-operative of almost 2,500 people that own the wind farm and the process by which the wind farm came into being. The hardware is relatively straight forward; five 1.3MW wind turbines commissioned in March 2008 at Watchfield just north of Swindon. The annual output of 12GW of electricity is fed into the local distribution network (National Grid) and is the equivalent of the annual domestic electricity usage of around 2,000 homes or 7,000 people.

The software is part process and part structure. The process comprises a 15 year project from conception to commissioning; much of that time was taken up with riding the rollercoaster of the English planning system but also includes the process of building a community of support, making best use of the opportunity for local community engagement with climate change and understanding how hearts and minds... and local politics tick

The structure is the formation of WOW (Windpower Over Westmill) the campaign group that helped to give birth to Westmill Co-operative Ltd, and the opportunity for local ownership of the project through the share offer that was needed to raise the £4.5 million of capital for the construction of the wind farm. The presentation will cover these aspects and lessons learnt along the way.

Adam is an organic farmer and initiator and one of the founding directors of Westmill wind farm co-operative, the first wind farm in central and southern England and the first 100% community owned wind farm in England initiated from within its own community. Adam was the recipient of the 2008 Schumacher award.